

Work Order ID 83631

April-20-12 2:30:00 PM

83631

AFT ONLY

Page 1

Item ID: D3391-025 Accept *N9000040100* Setup Start *NS1*
 Revision ID: Stop *NS2*
 Item Name: Aft Tube Assembly
 Start Date: 20/04/2012 Start Qty: 1.00 *1*
 Required Date: 04/05/2012 Req'd Qty: 1.00 *1*
 Reference: Cust Item ID:
 Customer:

Approvals: Process Plan: MLJ Date: 12/04/20 Tooling: _____ Date: _____
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____
 Run Start *NR1*
 Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
D3391	-1								

100 0.00
 100 MORI SEIKI CNC LATHE LARGE
 Mori Seiki Memo 0.00
 Mori Seiki CNC Lathe Large Turn-as per Folio FA599 Rev. 14 & Dwg D3391 Rev. 1
 scribe batch # on fwd end at 90 degree
 110 0.00
 110 QC2- Inspect parts off machine FAI/FAIB
 QC Memo 0.00
 Quality Control
 111 0.00
 111 QC8- Inspect parts - second check
 QC Memo 0.00
 Quality Control ***INSPECT INSIDE BORE***

KC 12-4-28
man-l

man-l
12/04/28

24 12.5.8
1 4

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: Machining NCR: Yes No DQA: _____ Date: _____

Resolution: Acceptable Disposition: Acceptable QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			
12/4/07	100	Length is 88.86.	GP 12/4/07 PS/042	Acceptable	MML 2/05/07	S 17/05/07	GP 12/4/07 PS/042	S 17/05/07

NOTE: Date & initial all entries

Work Order ID 83631

April-20-12 2:30:00 PM

83631

Page 2

Item ID: D3391-025 Accept ***N900040100*** Setup Start ***NS1***
 Revision ID: Stop ***NS2***
 Item Name: Aft Tube Assembly
 Start Date: 20/04/2012 Start Qty: 1.00 ***1*** Cust Item ID:
 Required Date: 04/05/2012 Req'd Qty: 1.00 ***1*** Customer:
 Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
120		0.00							
120	HAAS CNC VERTICAL MACHINING #1								
HAAS 1	Memo	0.00							
HAAS CNC vertical machine #1	1-Machine as per Folio FA 599 Rev <u>11/11</u> & Dwg D3391 Rev: <u>1</u> 2-Deburr								
130		0.00							
130	QC2- Inspect parts off machine FAI/FAIB								
QC	Memo	0.00							
Quality Control									
140		0.00							
140	QC8- Inspect parts - second check								
QC	Memo	0.00							
Quality Control	***INSPECT INSIDE BORE***								

POSITIVE RECALL
 EFFECTIVE 12.12.12 AUTH 12.12.12
 RELEASED DATE 12/05/07
 12-5-5

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

83631

Page 3

N900040100

Setup Start *NS1*
Stop *NS2*

Start Date: 20/04/2012	Start Qty: 1.00	*1*
Required Date: 04/05/2012	Req'd Qty: 1.00	*1*

Cust,Item ID:
Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

```
Run      Start  *NR1*
          Stop   *NR2*
```

[illegible]

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng/ Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			
14-2-15								

NOTE: Date & initial all entries

Work Order ID 83631***83631***

Page 4

April-20-12 2:30:00 PM

Item ID: D3391-025

Accept

N9000040100Setup Start ***NS1***

Revision ID:

Stop ***NS2***

Item Name: Aft Tube Assembly

Start Date: 20/04/2012 Start Qty: 1.00

1

Cust Item ID:

Required Date: 04/05/2012 Req'd Qty: 1.00

1

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start ***NR1***

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop ***NR2***Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

180

0.00

180

Skidtubes

Skidtubes

Memo

0.00

Skidtubes

1-Open Aft cap pilot hole to .208" as per Dwg D3391

2-Drill float bag holes using DT8809 as per Dwg D3391(Holes marked "A" Only.

3-Drill wearplate holes as per Dwg D3391 using DT8878(Mid Tube) & DT8217
Wearplate Jig.

*****Do Not Open To Finished Size*****

4-Drill Wearshoe holes as per DWG D3391 using DT8939 locating from 2
previously drilled aft wearplate holes.

5-Open wearplate holes to 0.250" and c'bore as per dwg D3391

6-Open up all wearshoe wearplate to 0.297"and float bag holes to 0.328" as per
Dwg D3391.

7-Deburr

12/05/14

12/05/14

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
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NOTE: Date & initial all entries

Work Order ID 83631

83631

Page 5

April-20-12 2:30:00 PM

Item ID: D3391-025
Revision ID:
Item Name: Aft Tube Assembly

Accept

N900040100

Setup Start *NS1*

Stop *NS2*

Start Date: 20/04/2012 Start Qty: 1.00 *1*

Cust Item ID:

Required Date: 04/05/2012 Req'd Qty: 1.00 *1*

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Run Start *NR1*

Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
190 *190* QC Quality Control	QC5- Inspect part completeness to step on W/O Memo	0.00 0.00							
200 *200* HandFinish Hand Finishing	Chemical Conversion Coat per QSI005 4.1 Memo	0.00 0.00							
210 *210* QC Quality Control	QC7-Inspect Chemical Conversion Coat Memo	0.00 0.00							

7/6

12-5-14

SAD

12-05-14

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

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83631

Page 6

April-20-12 2:30:00 PM

Item ID: D3391-025 Accept ***N900040100*** Setup Start ***NS1***
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 Item Name: Aft Tube Assembly
 Start Date: 20/04/2012 Start Qty: 1.00 ***1*** Cust Item ID:
 Required Date: 04/05/2012 Req'd Qty: 1.00 ***1*** Customer:
 Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
220		0.00							
220	Skidtubes								
Skidtubes	Memo	0.00							
Skidtubes	Instal spacers as per dwg D3391 A/R Magnabond 6398 Batch: <u>M120666</u> exp. date: <u>13/11/30</u> cure time 12hrs as per QSI0015								
230		0.00							
230	QC5- Inspect part completeness to step on W/O								
QC	Memo	0.00							
Quality Control									
235		0.00							
235	Pressure Wash per QSI005 4.3								
HandFinish	Memo	0.00							
Hand Finishing	AND.REALODINE AS PER PAR09-043								

DC 12/05/14

8/12/15

1 125-16

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Work Order ID 83631

83631

Page 7

April-20-12 2:30:00 PM

Item ID: D3391-025 Accept ***N900040100*** Setup Start ***NS1***
Revision ID: Stop ***NS2***
Item Name: Aft Tube Assembly
Start Date: 20/04/2012 Start Qty: 1.00 ***1*** Cust Item ID:
Required Date: 04/05/2012 Req'd Qty: 1.00 ***1*** Customer:
Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
240	White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum	0.00							
240 Powdercoat Powder Coating	Memo START TIME: 9:20 OVEN TEMPERATURE: 3200 F FINISH TIME: 9:50	0.00				1 X			Mf 12/05/16
250	QC3- Inspect Part Finish	0.00							
250 QC Quality Control	Memo	0.00				1			12-5-16
260	HandFinishing	0.00							
260 HandFinish Hand Finishing	Memo 1-Install inserts as per Dwg D3391 2-Install Aft Cap as per Dwg D3391 A/ R Sikaflex-241/-291 121221 Sikaflex expiry date: 13/01 3- INSTALL WEARPLATES AS PER DWG	0.00				1		2P	12/05/16

M121134

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Work Order ID 83631

April-20-12 2:30:00 PM

83631

Page 8

Item ID: D3391-025 Accept ***N900040100*** Setup Start ***NS1***
 Revision ID: Stop ***NS2***
 Item Name: Aft Tube Assembly
 Start Date: 20/04/2012 Start Qty: 1.00 ***1*** Cust Item ID:
 Required Date: 04/05/2012 Req'd Qty: 1.00 ***1*** Customer:
 Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
270	QC5- Inspect part completeness to step on W/O	0.00							
270									
QC	Memo	0.00							
Quality Control									
280	Identify as per dwg & Stock Location: _____	0.00							
280									
Packaging	Memo	0.00							
Packaging									
290	QC21- Final Inspection - Work Order Release	0.00							
290									
QC	Memo	0.00							
Quality Control									

S.210516

6/5/16

MCJ 12/05/16
MF
(2-05-16)

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

April-20-12 2:30:03 PM

Page 1

Work Order ID: 83631

83631

Parent Item: D3391-025

D3391-025

Parent Item Name: Aft Tube Assembly

Start Date: 20/04/2012

Required Date: 04/05/2012

Start Qty: 1.00

Required Qty: 1.00

Comments: IPP Rev B 06-02-07 ECN773 dwg rev. D EC
 IPP Rev:C 06-03-28 Update Manuf. Instructions JLM
 IPP rev D 07.03.20 revF dwg EC
 IPP rev E 07.11.07 rev G dwg ecn 1053p EC verified by: DD
 IPP Rev:F 07-11-13 ECN 1056 DD verified by: EC
 IPP Rev:G 08-09-10 revH as per dwg DD verified by:EC IPP Rev:H
 11.11.14 AS PER REV.I DD verified by:JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	-------------	--------------	---------------	----------------	--------

D4095-047		Manufactured	No			260	Each	18.0000	1	1			
D4095-047									**	1	(28)	12/05/16	
Wearpad Assembly													

Location	Loc Qty	Loc Code
FP002	18	
80703 ✓	6	
81626	12	

D4095-049		Manufactured	No			260	Each	26.0000	1	1			
D4095-049									**	1	(28)	12/05/16	
Wearpad Assembly													

Location	Loc Qty	Loc Code
FP002	26	
80704	2	
81612 ✓	24	

D6014-090		Manufactured	No			100	Each	32.0000	1	1			
D6014-090									**				
ALUMINUM EXTRUSION													

Location	Loc Qty	Loc Code
LG	32	
(7332)	32	

man-L 12/04/26

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

April-20-12 2:30:03 PM

Page 2

Work Order ID: 83631

83631

Parent Item: D3391-025

D3391-025

Parent Item Name: Aft Tube Assembly

Start Date: 20/04/2012

Required Date: 04/05/2012

Start Qty: 1.00

Required Qty: 1.00

D3670-4-200

Manufactured No

230

Each

55.0000

4

4

D3670-4-200

SPACER

**

DC 12/05/14

Location B81972

Loc Qty

Loc Code

LG

40

80360

40

LG001

15

72851

3

78606

12

(4)

D2646

Manufactured No

270

Each

67.0000

1

1

D2646

Aft Cap

**

1 (2P) 12/05/16

Location

Loc Qty

Loc Code

FP002

67

62678

5

68280

5

70945

1

71070

2

73294

1

73825

2

78018

17

79562 ✓

34

D3672-1

Manufactured No

270

Each

960.0000

2

2

D3672-1

Phenolic Washer

**

2 (2P) 12/05/16

Location

Loc Qty

Loc Code

FP001

10

66821

10

ST060

950

72229

4

76277 ✓

446

80369

500

April-20-12 2:30:04 PM

Shop Packet Print

Page 2

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
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NOTE: Date & initial all entries

Picklist Print

April-20-12 2:30:04 PM

Page 3

Work Order ID: 83631

Parent Item: D3391-025

Parent Item Name: Aft Tube Assembly

83631

D3391-025

Start Date: 20/04/2012

Required Date: 04/05/2012

Start Qty: 1.00

Required Qty: 1.00

ALS4-1032-130

Purchased

No

260

Each

5,077.000

14

14

AI S4-1032-130

Insert

**

14

(2P)

12/05/16

Location

Loc Qty

Loc Code

ST280

205

119084

116

120671

89

ST281

1872

120807

36

120837

1836

ST282

3000

121269 ✓

3000

ALS4-1032-225

Purchased

No

270

Each

1,850.000

8

8

AI S4-1032-225

Insert

**

8

(2P)

12/05/16

Location

Loc Qty

Loc Code

ST281

1827

108696

146

110768

62

118386

55

118966

68

121269 ✓

1496

ST282

23

120410

10

120451

13

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
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April-20-12 2:30:04 PM

Page 4

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Parent Item: D3391-025

Parent Item Name: Aft Tube Assembly

83631

D3391-025

Start Date: 20/04/2012

Required Date: 04/05/2012

Start Qty: 1.00

Required Qty: 1.00

AN3C4A

Purchased

No

270

Each

2,292.000

6

6

AN3C4A

BOLT

**

6

(2P)

12/05/16

Location

Loc Qty

Loc Code

ST350

121556✓

2292

120187

1226

120521

28

120769

38

121205

1000

AN3C5A

Purchased

No

270

Each

1,142.000

4

4

AN3C5A

Bolt

**

4

(2P)

12/05/16

Location

Loc Qty

Loc Code

FP001

7

115835

7

ST350

121444✓

1135

116419

28

117343

13

117764

7

117872

2

119749

23

120423

62

1210168

500

121255

500

AN960C10L

✱

NAS1149C0332

✓

Purchased

No

270

Each

0.0000

10

10

*AN960C10I *

washer

**

10

(2P)

12/05/16

121509✓

April-20-12 2:30:04 PM

Shop Packet Print

Page 4

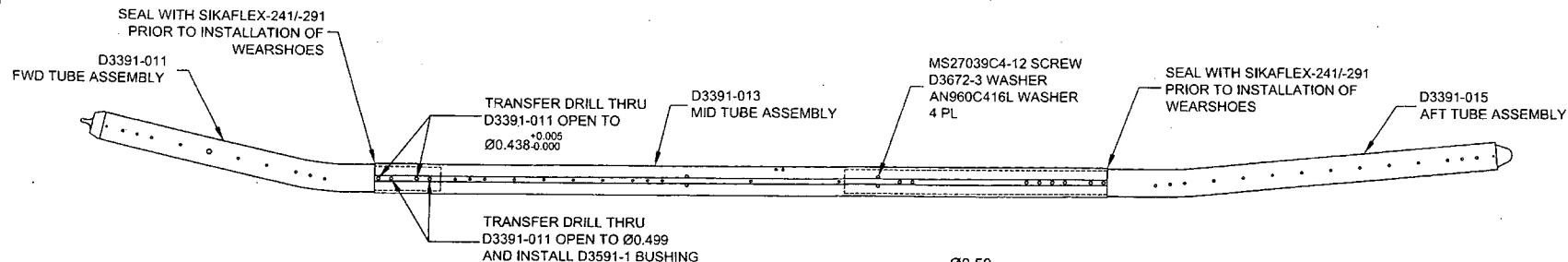
W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

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NOTE: Date & initial all entries



D3391-041 FLOAT SKIDTUBE ASSEMBLY PARTS LIST

QTY -041	PART NUMBER	DESCRIPTION
X	D3391-041	FLOAT SKIDTUBE ASSEMBLY
1	D3391-011	FWD TUBE ASSEMBLY
1	D3391-013	MID TUBE ASSEMBLY
1	D3391-015	AFT TUBE ASSEMBLY
2	D3591-1	BUSHING
4	D3672-3	WASHER
1	D4095-041	WEARSHOE
1	D4095-043	WEARSHOE
1	D4095-045	WEARSHOE
1	D4095-047	WEARSHOE
1	D4095-049	WEARSHOE
1	D4095-051	WEARSHOE
24	AN3C4A	BOLT
10	AN3C6A	BOLT
4	AN3C7A	BOLT
38	AN960C10L	WASHER
4	MS27039C4-12	SCREW
4	AN960C416L	WASHER

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 03631 *MLJ*
12/04/20

GENERAL NOTES

- 1) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
POWDER COAT WHITE (4.3.5.1) PER DART QSI 005 4.3
- 2) COAT ALL EXPOSED FASTENERS WITH LPS LABORATORIES "LPS PROCYON"
AFTER FINAL ASSEMBLY, CLEAN EXCESS OFF POWDER COATING WITH MEK DEGREASER.
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) USE DART DRILL TEMPLATE DT8217 TO LOCATE AND DRILL Ø0.297 SIZE HOLES
FOR WEARSHOE INSERTS. C-BORE AS NOTED AND INSTALL INSERTS EXCEPT
WHERE INDICATED.
- 6) FIT D4095-041 TO SKIDTUBE WITH D2571 AND D2572 SADDLES INSTALLED WITH
APPROPRIATE HARDWARE AND SPACERS IN FORWARD AND AFT HOLES AND
TRANSFER DRILL Ø0.50 HOLES FROM SADDLE TO D4095-041
- 7) FIT D4095-043 TO SKIDTUBE WITH D2571 AND D2572 SADDLES INSTALLED WITH
THE APPROPRIATE HARDWARE AND SPACERS IN FORWARD AND AFT HOLES AND
TRANSFER DRILL Ø0.50 HOLES FROM SADDLE TO D4095-043

RELEASED
2011-11-04
ECN# 11-662

I	REMOVE GASKETS AND REPLACE ALL WEARSHOES; PARTS LIST UPDATE, ZN A8-1, ZN A8-2, ZN A6-4, ZN B6-8; LPS-3 COATING REMOVED FROM NOTE 2, ZN A3-1, ZN A3-2, REMOVED INSERT AELS-1032-130, ZN B6-4, B2-4, C7-8, C3-8; REMOVED HOLES, ZN D6-4 ZN D2-4, ZN D7-8, ZN D3-8	XDF	11.10.13
H	DRAWING UPDATED TO CURRENT STANDARDS. SHT 1 PL ADDED D3591-1 BUSHING, ZN C6 Ø0.438 DIM WAS 4 PL ADDED Ø0.499 DIM AND D3591-1 BUSHING. SHT 2 PL ADDED D3591-1 BUSHING, ZN C6 Ø0.438 DIM WAS 4 PL ADDED Ø0.499 DIM AND D3591-1 BUSHING. (FOR FURTHER INFO SEE DSI 9364 & NCR 08-074)	AJS	08.08.20
G	REPLACE NAS INSERTS W/ AELS INSERTS SWITCH TO D3670-XXXX SPACERS FOR INSTALLING FLOAT BAGS, DWG REORGANIZED FOR CLARITY	DC	07.07.31
F	ADD SS WEARSHOE, GASKET REMOVE FWD SADDLE HOLE -0111-021	PH	07.01.18
E	CHANGE TOLERANCE, EASE MANUFACTURE	PH	06.04.25
D	UPDATE TOLERANCE, CHANGE HOLE SIZE	PH	06.01.23
C	LENGTHEN AFT EXTENSION	PH	05.09.27
B	DRAWING UPDATES	PH	05.06.10
A	NEW ISSUE	PH	05.02.07
REV.	DESCRIPTION	BY	DATE
DESIGN	PH		
DRAWN	XDF		
CHECKED			
MFG. APPR.			
APPROVED			
DE APPR.			
DATE	11.10.13		

DART AEROSPACE USA, INC
KENT, WA
DRAWING NO. **D3391** REV. **I**
SHEET 1 OF 8
TITLE **412 FLOAT SKIDTUBE** SCALE **NTS**

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Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

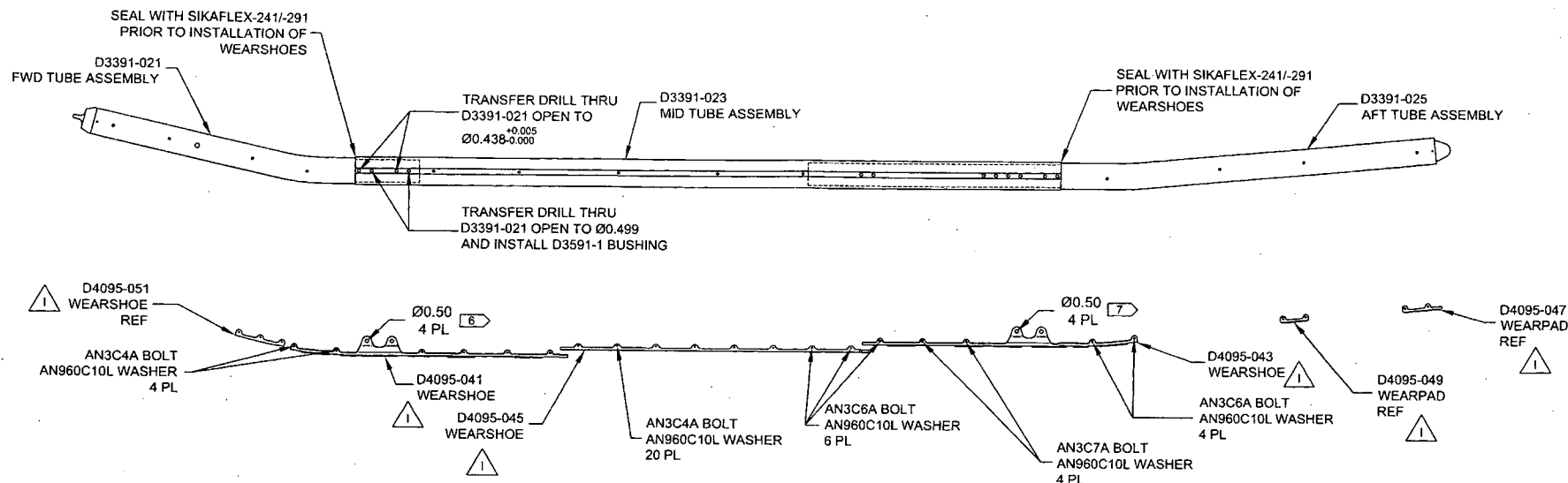
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Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

03631



D3391-043 ASSEMBLY

D3391-043 FLOAT SKIDTUBE ASSEMBLY PARTS LIST

QTY -043	PART NUMBER	DESCRIPTION
X	D3391-043	FLOAT SKIDTUBE ASSEMBLY
1	D3391-021	FWD TUBE ASSEMBLY
1	D3391-023	MID TUBE ASSEMBLY
1	D3391-025	AFT TUBE ASSEMBLY
2	D3591-1	BUSHING
1	D4095-041	WEARSHOE
1	D4095-043	WEARSHOE
1	D4095-045	WEARSHOE
1	D4095-047	WEARPAD
1	D4095-049	WEARPAD
1	D4095-051	WEARSHOE
24	AN3C4A	BOLT
10	AN3C6A	BOLT
4	AN3C7A	BOLT
38	AN960C10L	WASHER

GENERAL NOTES

- 1) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
POWDER COAT WHITE (4.3.5.1) PER DART QSI 005 4.3
- 2) COAT ALL EXPOSED FASTENERS WITH LPS LABORATORIES "LPS PROCYON" AFTER FINAL ASSEMBLY. CLEAN EXCESS OFF POWDER COATING WITH MEK DEGREASER.
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) USE DART DRILL TEMPLATE DT8217 TO LOCATE AND DRILL Ø0.297 SIZE HOLES FOR WEARSHOE INSERTS. C'BORE AS NOTED AND INSTALL INSERTS EXCEPT WHERE INDICATED.
- 6) FIT D4095-041 TO SKIDTUBE WITH D2571 AND D2572 SADDLES INSTALLED WITH APPROPRIATE HARDWARE AND SPACERS IN FORWARD AND AFT HOLES AND TRANSFER DRILL Ø0.50 HOLES FROM SADDLE TO D4095-041
- 7) FIT D4095-043 TO SKIDTUBE WITH D2571 AND D2572 SADDLES INSTALLED WITH THE APPROPRIATE HARDWARE AND SPACERS IN FORWARD AND AFT HOLES AND TRANSFER DRILL Ø0.50 HOLES FROM SADDLE TO D4095-043

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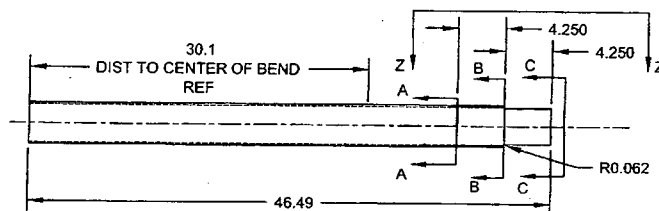
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Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

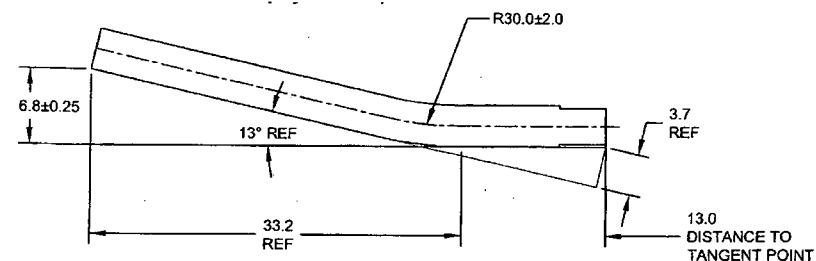
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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

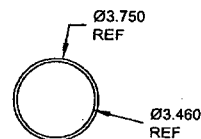
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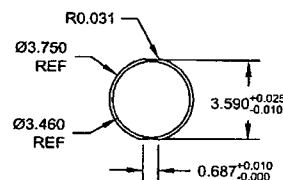
D3391-1 CUTTING DETAIL
(MAKE FROM D6013-047 SKIDTUBE MATERIAL)



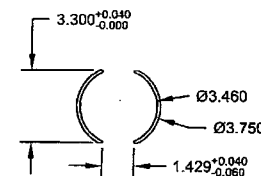
D3391-011/-021 BENDING DETAIL
(MAKE FROM D3391-1)



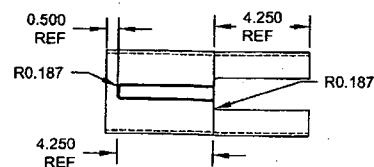
SECTION A-A
SCALE 2X



SECTION B-B
SCALE 2X



SECTION C-C
SCALE 2X



VIEW Z-Z
SCALE 2X

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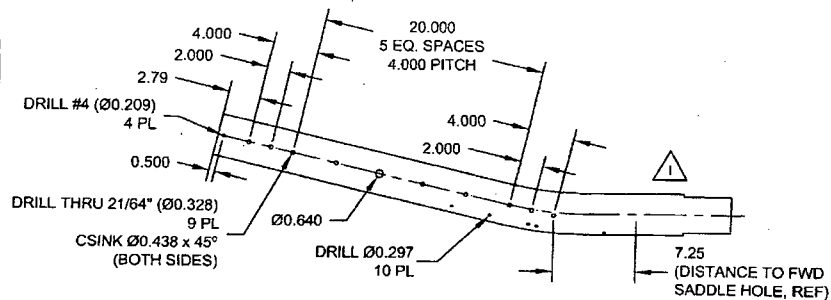
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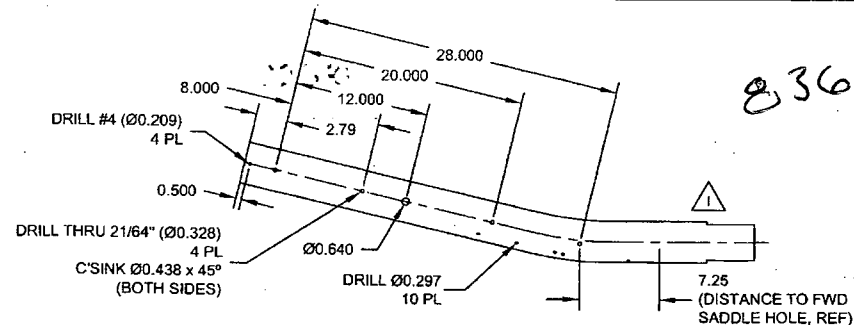
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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

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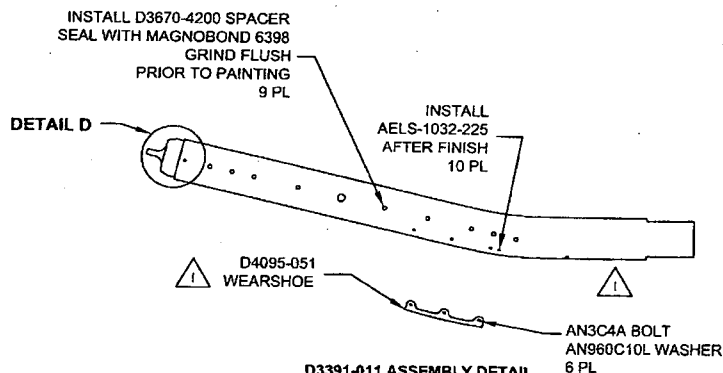
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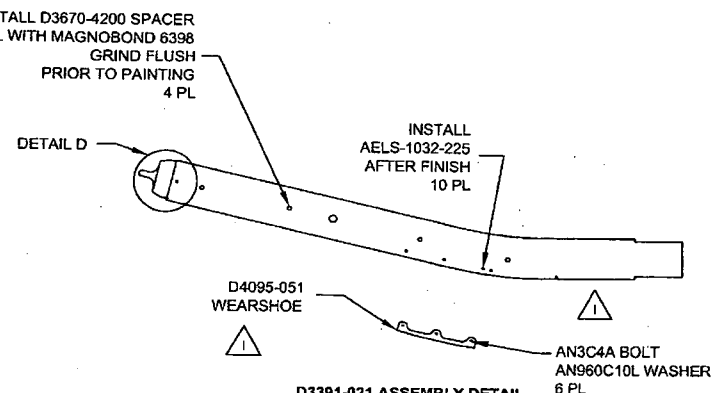
D3391-011 DRILLING DETAIL



D3391-021 DRILLING DETAIL



D3391-011 ASSEMBLY DETAIL

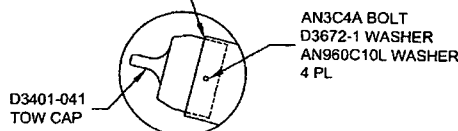


D3391-021 ASSEMBLY DETAIL

D3391-011/-021 FWD TUBE ASSEMBLY PARTS LIST

QTY - 011	QTY - 021	PART NUMBER	DESCRIPTION
X	X	D3391-011	FWD TUBE ASSEMBLY
		D3391-021	FWD TUBE ASSEMBLY
1	1	D3401-041	TOW CAP
9	4	D3670-4200	SPACER
4	4	D3672-1	WASHER
1	1	D4095-051	WEARSHOE
1	1	D6013-047	FWD TUBE
10	10	AN3C4A	BOLT
10	10	AN960C10L	WASHER
10	10	AELS-1032-225	INSERT

SEAL WITH SIKAFLEX-241/-291



DETAIL D
SCALE 2X

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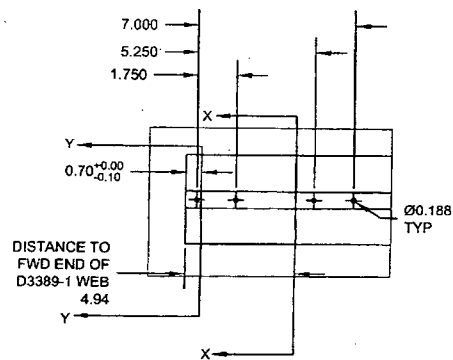
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Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

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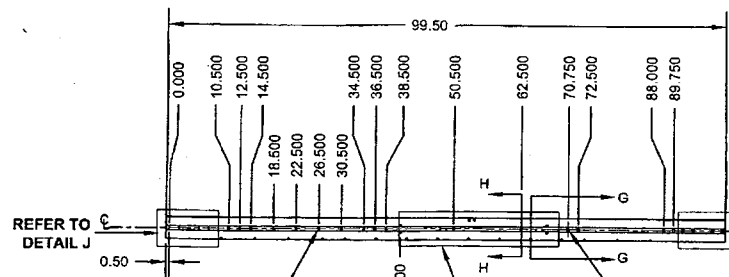
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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

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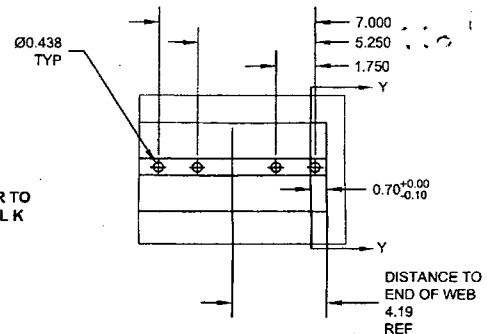


DETAIL J
SCALE 4X

DRILL THRU 21/64" (Ø0.328)
CSINK Ø0.438 X 45° (BOTH SIDES)
12 PL



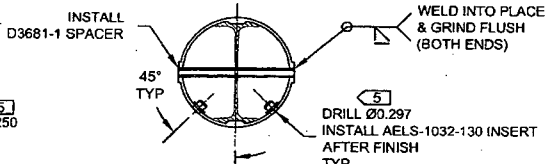
D3391-013 ASSEMBLY DETAIL



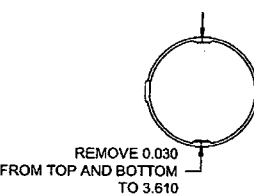
DETAIL K
SCALE 4X



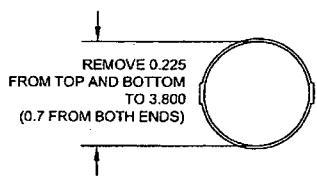
SECTION G-G
SCALE 5X



SECTION H-H
SCALE 5X



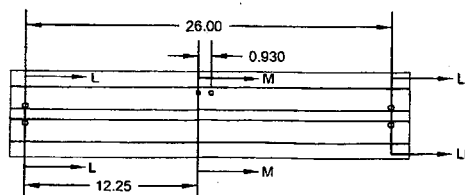
SECTION X-X
SCALE 5X



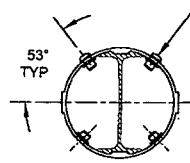
SECTION Y-Y
SCALE 5X

D3391-013 MID TUBE ASSEMBLY PARTS LIST

QTY	PART NUMBER	DESCRIPTION
-013		
X	D3391-013	MID TUBE ASSEMBLY
1	D2500-1-100	EXTRUSION
1	D3389-1	WEB
4	D3672-1	WASHER
4	D3672-3	WASHER
12	D3681-1	SPACER
24	AELS-1032-130	INSERT
4	ALS4-428-165	INSERT
4	AN980C10L	WASHER
4	AN980C416L	WASHER
4	MS27039C1-09	SCREW
4	MS27039C4-08	SCREW

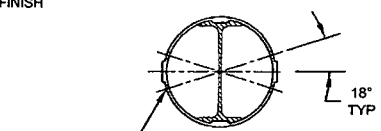


DETAIL E
SCALE NONE



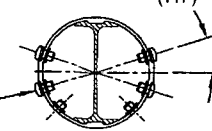
SECTION M-M
SCALE 5X

DRILL Ø0.297
INSTALL AELS-1032-130 INSERT
MS27039C1-09 SCREW
D3672-1 WASHER
AN980C10L WASHER
AFTER FINISH
4 PL



SECTION LL-LL
SCALE 5X

DRILL Ø0.391
INSTALL ALS4-428-165 INSERT
MS27039C4-08 SCREW
D3672-3 WASHER
AN980C416L WASHER
AFTER FINISH
4 PL



SECTION L-L
SCALE 5X

D3391-013 MID TUBE ASSEMBLY

- 1) MATERIAL: MAKE FROM D2500-1-100 EXTRUSION
- 2) INSTALL D3389-1 WEB TO OUTER TUBE USING SIKAFLEX-241/291 PER QSI 015
- 3) WELDING: PER DART QSI 004

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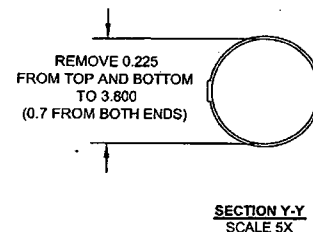
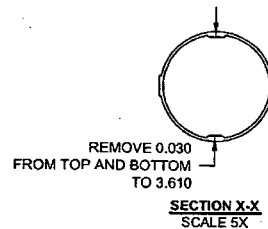
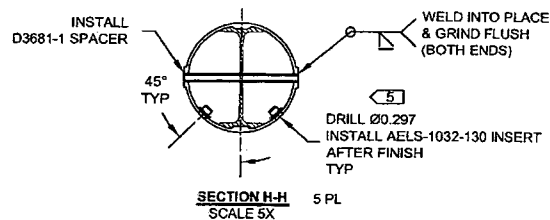
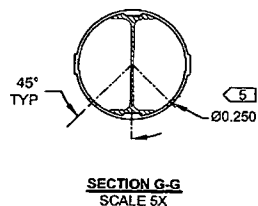
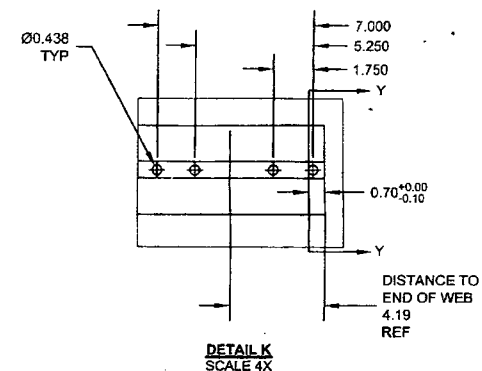
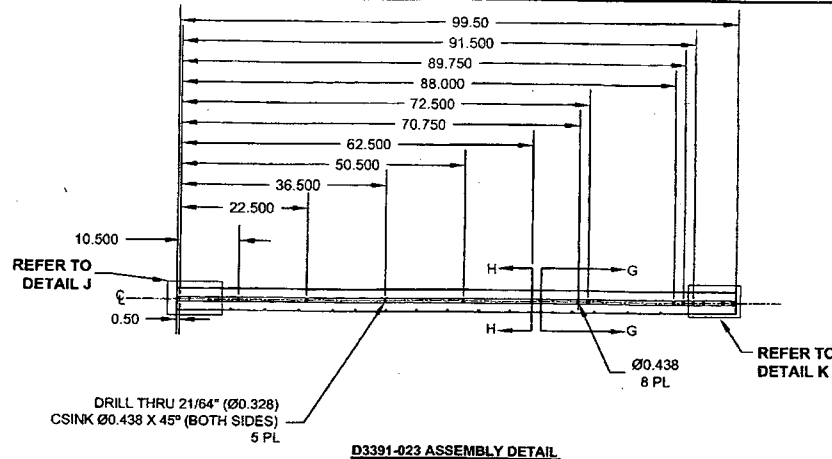
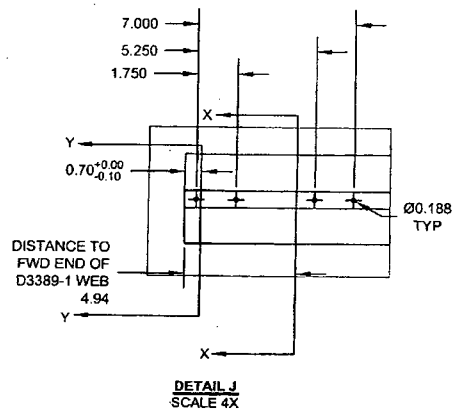
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Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries



D3391-023 MID TUBE ASSEMBLY PARTS LIST

QTY - 023	PART NUMBER	DESCRIPTION
X	D3391-023	MID TUBE ASSEMBLY
1	D2500-1-100	EXTRUSION
1	D3389-1	WEB
5	D3681-1	SPACER
20	AELS-1032-130	INSERT

D3391-023 MID TUBE ASSEMBLY

- MATERIAL: MAKE FROM D2500-1-100 EXTRUSION
- INSTALL D3389-1 WEB TO OUTER TUBE USING SIKAFLEX-241/-291 PER QSI 015
- WELDING: PER DART QSI 004

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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

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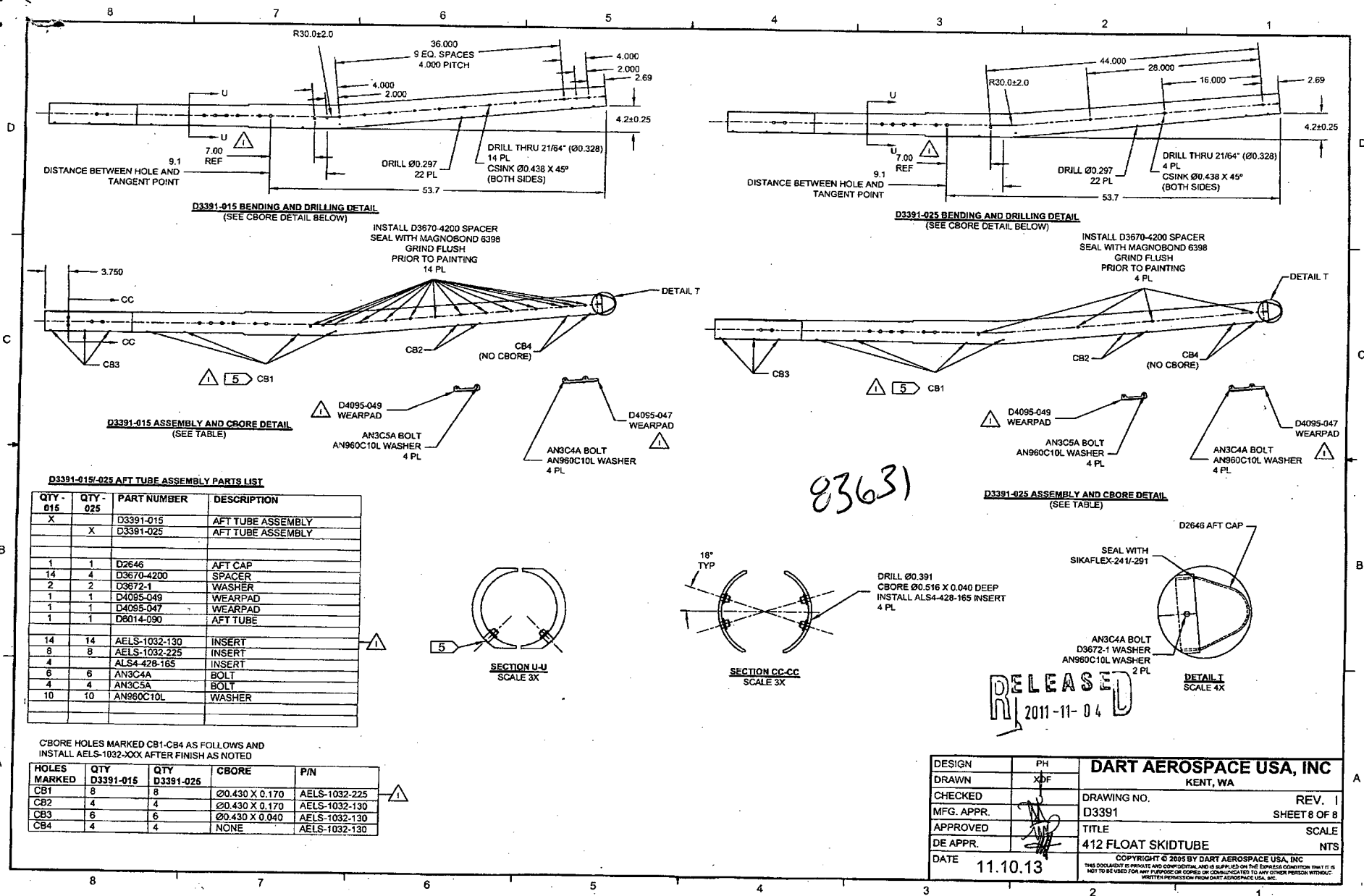
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W/O:		WORK ORDER CHANGES					
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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

DART AEROSPACE LTD		Work Order: 83631
Description: Float Skidtube (412)		Part Number: D3391-3
Inspection Dwg: D3391	Rev: H	Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
Lathe Section						
14.000	+/-0.010	14.00	/			
3.500	+/-0.010	3.497	/			
88.93	+/-0.030	88.860	/	✓		
Ø3.200	+/-0.010	3.209	/	✓		
88.93	+/-0.030	88.860	/	✓		
Ø3.750	+/-0.010	3.750	/			
30° x 160" chamfer	+/-0.010	30° x .060	/			

Measured by: JMM	Date: 12/04/27
Audited by: JR	Date: 12-5-5

HAAS Section						
1.526	+0.000/-0.030	1.513	/		20-02	
7.500	+/-0.010	7.500	/		20-07	
27.750	+/-0.010	27.750	/		RQ-15	
31.750	+/-0.010	31.750	/			
35.250	+/-0.010	32.250	/			
3.300	+/-0.010	3.303	/			
0.200	+/-0.010	.200	/			
3.520	+/-0.010	3.522	/			
0.687	+0.010/-0.000	.687	/			
R0.062	+/-0.010	.062	/			
Ø0.484	+0.005/-0.001	.482	/			

Measured by: RQ	Date: 12-5-5
Audited by: B-A	Date: 12/05/07

Rev	Date	Change	Revised by	Approved
A	06.04.24	New Issue P/O D3391-015/-025	KJ/JLM	
B	06.06.19	Dwg revision update	KJ/JLM	
C	07.04.20	Ø0.208 dimension removed	KJ/JLM	
D	07.09.06	0.400 dimension removed	KJ/JLM	
E	07.11.23	Dwg Rev. updated	KJ/EC/DD	
F	09.04.27	Dimensions updated per Rev H and NCR09-028	KJ/JLM	
G	09.11.16	Dimension 0.200 removed	KJ	
H	11.06.21	Dimension 44.995 removed	KJ	

W/O:		WORK ORDER CHANGE					
DATE	STEP	PROCEDURE CHANGE					

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries